DOCUMENT RESUME

ED 273 031 EA 018 765

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| AUTHOR | Sudlow, Robert E. |
| TITLE | What Is an Effective School? |
| INSTITUTION | Spencerport Central Schools, N.Y. |
| PUB DATE | 85 |
| NOTE | 11p.; In its: Spencerport Central Schools More Effective Schools/Teaching Project Documents; see EA 018 758. |
| PUB TYPE | Information Analyses (070) |
| EDRS PRICE | MF01/PC01 Plus Postage. |
| DESCRIPTORS | *Academic Achievement; *Academic Standards; *Definitions; Elementary Secondary Education; Evaluation Criteria; Evaluation Methods; Factor Analysis; Minimum Competencies; *Minimum Competency Testing; Program Evaluation; *School Effectiveness |
| IDENTIFIERS | *Disaggregated Analysis; *Effective Schools Research; New York (Spencerport) |

ABSTRACT

Although the topic of effective schools is a popular one among today's educators, researchers, and publishers, there still is no commonly agreed upon definition of an effective school. One definition given by Ronald Edmonds and Lawrence Lezotte is notably precise, measurable, attainable, and easy to determine. They defined an effective school as one which demonstrates the following criteria: (1) 95 (or greater) percent of all students at each grade level demonstrate minimum academic mastery and are prepared to succeed in the next grade anywhere in the United States; (2) there shall be no significant difference in the proportion of students demonstrating minimum academic mastery as a function of socioeconomic class; and (3) the above two conditions have been obtained for a minimum of three consecutive years. Minimum academic mastery is measured by performance on a standardized test (preferably criterion-referenced as opposed to norm-referenced). A disaggregated analysis can be used to determine school effectiveness as well as to establish school district standards higher than those set by a state education department. It also is a simple, effective tool for proving or disproving hypotheses or questions. Eleven footnotes are appended. (IW)

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# WHAT IS AN EFFECTIVE SCHOOL?

by

Robert E. Sudlow

1985

What is an effective school? How do you recognize one when you see it? If a district or a building says that it is effective, is it?

"Effective schools" is a popular topic. Professional journals allocate considerable space to this topic. Effective schools were discussed frequently at the spring 1985 ASCD and AERA national conferences, and different groups such as the Educational Research Service and the Connecticut State Education Department have developed special publications devoted to entirely effective schools. In addition, traditional signs of popularity have appeared such as a newsletter, The Effective School Report, and a national organization, the National Council for Effective Schools.

Yet strangely absent from this discussion is a commonly agreed upon definition of an effective school. Thus widely differing constructs may be standing under the same umbrella. To illustrate this problem, two differing definitions of effectiveness are found in the literature. One research stucy identified effective schools as follows: "Those schools having aggregate differential scores... above the district average for Title I schoo s were classified as more effective and those having aggregate differentia' scores below the district average for Title I schools were c'assified as less effective." An aggregate score is the sum, across achievement areas, of the

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differences between the school means and the composite means for the seven schools studied. Aggregate scores were computed for reading, writing, vocabulary, mathematics computation and mathematics concepts (Fenn and Iwanicki, 1983).

In another study effective schools were defined as: "Those scoring above their predicted score range in at least two of the three basic skill areas (reading, writing and mathematics), but not below the predicted score range in the third area. Ineffective schools were identified scoring below their predicted score range in at least two of the three basic skill areas, but not above the predicted score range in the third area." The predicted score was obtained using a multiple regression formula: thirty-three school condition variables, especially data population density and student socio-economic status (SES), were "candidates for entry into regression to calculate the school's predicted score range" (Blust, Coldiron and Lark, 1984).

Thus one definition of effectiveness is based upon a comparison of mean achievement scores whereas another definition of effectiveness is a comparison of predicted with actual scores. When differing definitions are used, it is a very difficult task to build a coherent body of research and literature. Without an accepted definition of effectiveness each article, each research project is likely to be an island unto itself.

Perhaps the most widely cited researchers in the field are Ronald Edmonds and Lawrence Lezotte. Edmonds defined an effective school as a school which brings "the children of the poor to those minimal masteries of basic school skills that now describe minimally successful pupil performance for the children of the middle class." Minimally successful pupil performance "refers to early acquisition of those basic school skills that assure pupils

successful access to the next level of schooling." He then commented that "if that seems too modest a standard, note that as of now the schools that teach the children of the poor are dismal failures even by such a modest standard" (Edmonds, 1979).

Lezotte and Bancroft state that "two outcome standards are anticipated in effective schools. First, the overall level of achievement to which the students rise on the outcome measures must be significantly high to signify acceptable mastery of the essential curriculum. Second, the distribution of achievement must not vary significantly across the major subsets of the student population (that is, middle socio-economic students versus lower socio-economic students)" (Lezotte and Bancroft, 1985).

During the late winter and spring of 1983 Edmonds and Lezotte made numerous presentations to the staff of the Spencerport, New York, Central School District. They defined an effective school as one which demonstrates all of the criteria below:

1. Ninety-five, or greater, percent of all students at each grade level demonstrate minimum academic mastery. Students who achieve minimum academic mastery have been prepared so that they will be predictably successful in the next grade in either their own school or in any other school building in the nation. Minimum academic mastery is measured by performance on a standardized test, preferably criterion referenced, otherwise norm referenced.
2. There shall be no significant difference in the proportion of youth demonstrating minimum academic mastery as a function of socio-economic class.

3. The above two conditions shall have been obtained for a minimum of three consecutive years (Edmonds and Lezotte, 1983a).

This definition can be illustrated as follows:

Table 1 - An Effective School: Disaggregated Analysis

| | Lower Socio-economic Class | Middle and Upper Socio-economic Classes |
|---|---|---|
| At or above minimum academic mastery | 95% | 95% |
| Below minimum academic mastery | 5% | 5% |

Conversely, an ineffective school can be illustrated as follows:

Table 2 - An Ineffective School: Disaggregated Analysis

| | Lower Socio-economic Class | Middle and Upper Socio-economic Classes |
|---|---|---|
| At or above minimum academic mastery | 65% | 85% |
| Below minimum academic mastery | 35% | 15% |

Should a school not be effective according to the above definition, then the following interim definition may be used until the building attains effectiveness:

1. There shall be an annual increase in the proportion of students who demonstrate minimum academic mastery, and

2. There shall be an annual decrease in the discrepancy between the proportion of youth from the lower socio-economic class demonstrating minimum academic mastery as compared with the proportion of youth from the middle and upper socio-economic classes demonstrating minimum academic mastery (Edmonds and Lezotte, 1983b).

Determination of the point of minimum academic mastery is a local decision, providing that the score chosen is sufficient to assure that students who attain or exceed this criterion have mastered the curriculum sufficiently so that they will be predictably successful in the next level of schooling, either in their own school or in any other school building in the nation. For the thirty-five or thirty-six states which have a minimal competency testing program such as the New York State Pupil Evaluation Program or the Michigan Assessment Program, the cut-off score could be that score determined by the state education department as the demarcation point between passing and failing. If a criterion referenced testing program is used, then that score--for example, eighty per cent--which indicates mastery of the content could be used. If a norm referenced test is used, then the cut-off score could be either the twenty-third percentile (third stanine) or the thirty-ninth percentile (fourth stanine). Effective school projects throughout the nation which use norm referenced tests have chosen cut-off scores ranging from the twenty-third to the fortieth percentiles.

If an effective schools project exists in a state which has a state testing program, then, at the very least, effectiveness should be demonstrated using state tests and state standards. Society, acting through the education departments in the various states, has said that it expects its children to

learn at least that which the state tests measure. If we as educators wish to strive for additional or other objectives, we must first achieve well the objectives which society sets for us.

If a building or a school district wishes to establish standards higher than those set forth by its state education department, it should first compute a disaggregated analysis using the state's standards to demonstrate it has attained that level of effectiveness. Then it can compute a second disaggregated analysis using higher standards. Buildings or districts which do this then can declare that they have a more effective schools project. This distinction might be helpful to many schools which are effective by conventional criteria. They are, however, reluctant to embark upon an effective schools project because they do not wish to imply to their constituents that they are ineffective.

Tables One and Two which show the percent of students from the lower and the middle and upper socio-economic classes who score above and below the minimum academic mastery level are examples of Disaggregated Student Achievement. An analysis similar to this is required if one is to ascertain if a school is effective according to Edmonds and Lezotte's definition. Indeed, Edmonds said: "I think the most important issue is how you portray achievement. If you're going to seriously think about the implications of the research on school effectiveness, you will see the necessity of what's called 'disaggregated analysis' of test scores" (Edmonds, 1982).

A Disaggregated Analysis of student achievement is a simple, effective and powerful tool which can be used to prove or disprove other hypotheses or questions. For example:

1. Does student achievement differ according to gender, race, ethnicity and/or social class?

2. Do patterns of grading differ according to social class, ethnicity, race and/or gender?

3. Do patterns of course selections (i.e. Which students take which courses?) differ? (Shoemaker, 1984; Edmonds 1982)

Further, a Disaggregated Analysis is not limited to reading and math. A school can use it to determine effectiveness in social studies, science, music or other curricular areas which it chooses to measure. Likewise, data pertaining to the frequency of higher level thinking skills such as problem solving skills can be placed on a Disaggregated Analysis matrix and analyzed. A Disaggregated Analysis is a generic tool which graphically shows whether all students in a school are equally receiving an education, however it is defined and measured.

Effective schools projects compute disaggregated analyses for reading, mathematics and other areas of interest on the basis of socio-economic class. Preferably the mother's level of education (Edmonds and Fredericksen, 1978) is used to determine this. Many schools which do not have this information use free and reduced lunch data.

In conclusion, Edmonds and Lezotte's definition is notably precise, measurable and attainable but also easy to determine. Further, the Disaggregated Analysis of Student Achievement, which demonstrates whether or not a school is effective, can be computed easily with only pencil and paper (Sudlow, 1985). If a school is striving to be effective, or if a researcher is studying in this area of endeavor, then Edmonds and Lezotte's definition provides the acceptable benchmark of effectiveness.

If Edmonds and Lezotte's definition is not used, then "effective" will be a vague term to which all can agree but one which will have little, if

any, meaning except for local claims which can not be independently verified. If so, the effective schools concept will become another passing fad. This would be tragic for the definition and correlates of an effective school are a most powerful construct around which to center a program of school improvement.

## FOOTNOTES

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